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The DRILLER

THE JOHN CRERAR
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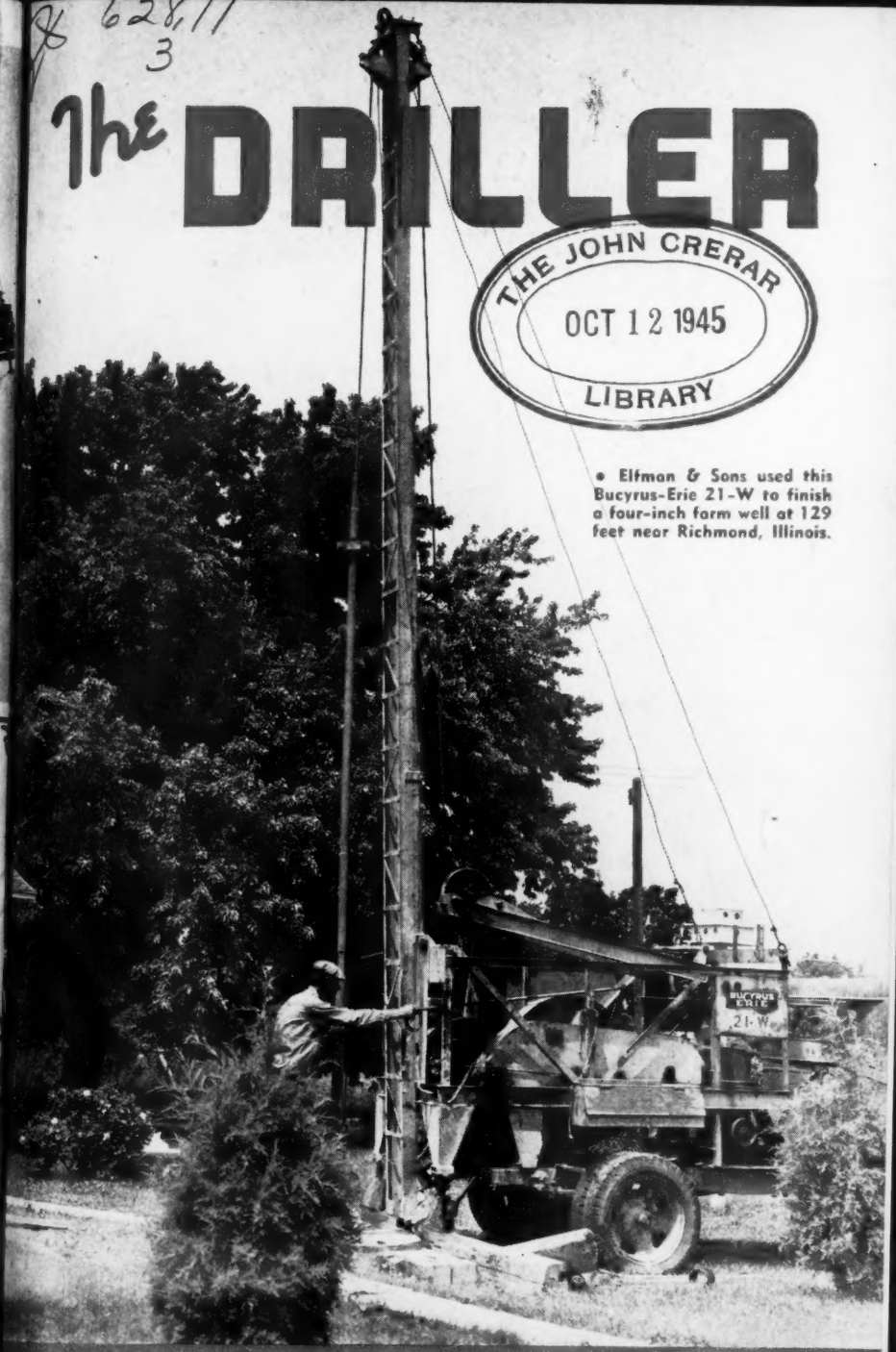

• Elfman & Sons used this Bucyrus-Erie 21-W to finish a four-inch farm well at 129 feet near Richmond, Illinois.

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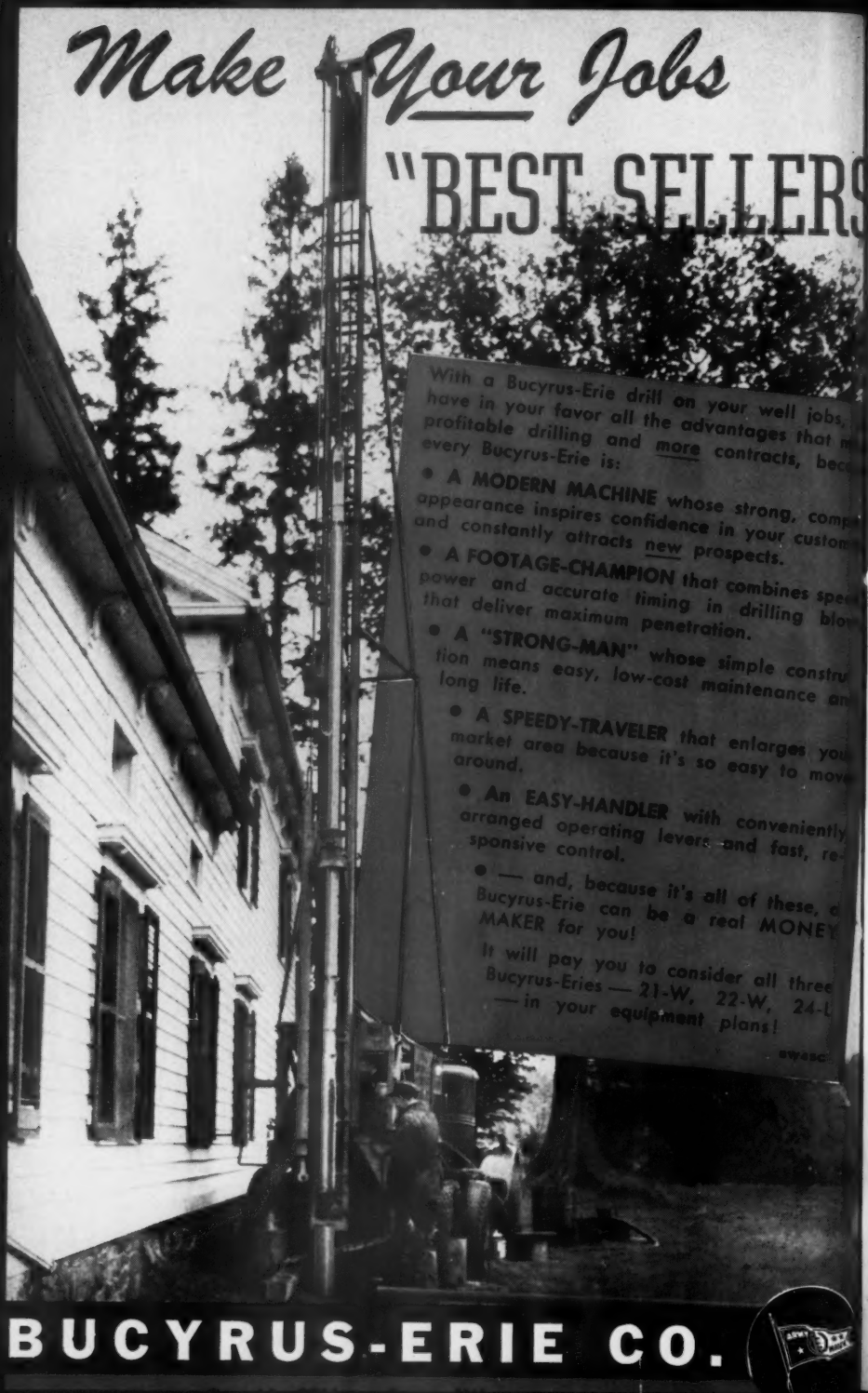
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With a Bucyrus-Erie drill on your well jobs,
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• A MODERN MACHINE whose strong, comp
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tion means easy, low-cost maintenance an
long life.
• A SPEEDY-TRAVELER that enlarges you
market area because it's so easy to mov
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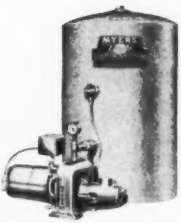
• An EASY-HANDLER with conveniently
arranged operating levers and fast, re
sponsive control.
• — and, because it's all of these, a
Bucyrus-Erie can be a real MONEY
MAKER for you!
It will pay you to consider all three
Bucyrus-Eries — 21-W, 22-W, 24-L
— in your equipment plans!
BUCYRUS-ERIE CO.

on the subject of **product know how**

A MESSAGE TO MYERS DEALERS

What the user tells you about his Myers Water System is the most important thing that can be said about it — and everywhere users are saying, "Tops in performance — Completely satisfied" Now, they are particularly enthusiastic about the new "H" series *Ejecto* — which is meeting with remarkable acceptance all over the country.

Behind this great performance is Myers' *superior* product KNOW HOW, a sound combination of advanced engineering, careful selection of materials, and quality construction, proven through many years of outstanding leadership in the water system field. Count on it to back up *your* program for bigger sales volume as your post-war market develops.



THE F. E. MYERS & BRO. COMPANY
Dept. C-58, Ashland, Ohio

Water Systems • Pumps • Sprayers • Hay Unloading Tools

Missouri

This husband-and-wife partnership in south-central Missouri water-well drilling is proud of its many achievements. Solving drilling problems and gaining hosts of friends has helped them build a large back-log of orders.

• Neva and Slim Grisham pose beside their sleet-covered bull-wheel drilling rig near Fair Grove, Missouri.

PUTTING down a hole in the pit of a hand-dug well may not be uncommon, but the one Horace B. Grisham and his wife Neva of Fair Grove, Missouri, drilled some time ago proved to be their most unusual job.

Walled with rock, the 35-ft. dug well was capped with a large, immovable concrete block. When Grisham accepted the job of drilling for more water, he clearly understood that every square inch of the concrete cap had to be saved and the owner insisted that the new well be completed at that spot. In addition, the new pump was to be installed through the 10-inch hole in the center of the slab.

It was easy to back his rig in position over the 10-inch opening, but Grisham soon found that starting a new well 35 feet down in line with the opening in the concrete cap was no easy matter. In spite of the fact that there was no possible way to guide the tools from the bottom of the dug well, Grisham and his wife nevertheless managed to get their 33-ft. string of dangling tools to "scratch" a funnel-shaped hole down to 38 feet. Then, dropping casing through the 10-inch hole, the Grishams were surprised to find that

Drilling Team

it lined-up perfectly with the newly drilled hole and the opening in the concrete block.

But that was not all to the unusual job. Drilling only a few feet farther, the newly-set casing snapped in two and required a good deal of fishing to bring it up. With a re-welded and reset casing, the Grishams continued drilling through boulder after boulder — which was another obstacle on the job — until they were finally rewarded with a good producing well at 71 feet.

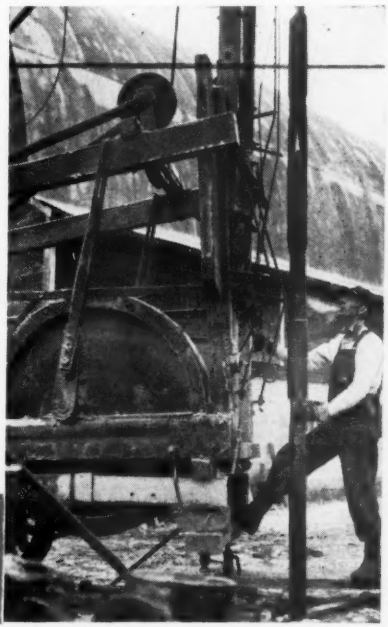
Cover Area in 25-mile Radius

The production of the well, said Horace, proved to be excellent and seemed to be unlimited. It puzzled him greatly but he finally decided that an aquifer from the Pomme-de-Terre River had been tapped at the base of the bluff where the well was drilled.

Better known as "Slim", Horace Grisham and his wife Neva enjoyed the trials experienced with that well. They have formed a pleasant and profitable well-drilling team that has received popularly-approved publicity in their territory in south-central Missouri. The Grishams cover an area in a radius of approximately 25 miles from Fair Grove, taking in most of Greene and Webster counties.

Slim and Neva have stuck to drilling farm and suburban-home wells exclusively. The diameter hole they usually put down is 6¼ inches and depths of their wells to water bearing stratas range from 50 to 200 feet. They have discovered that five gpm usually can be expected from every well, but some holes they have put down fill faster than they can bail. All of their work has been performed with a bull-wheel type rig mounted on a heavy-duty International truck, both obtained with the assistance of their good friend J. A. Reed, well contractor of Camdenton with 30-odd years experience.

"We use a 33-ft. string of tools which are like toys compared to



• Horace B. Grisham pulls at the spudding clutch lever as the bit comes out of the hole on this Missouri farm-well job.

those which I worked with at Signal Hill, California, some years ago," stated Grisham. "It seems odd to drill an occasional well only five or six feet down to solid rock. We use an eight-inch bit for jobs like that and case with 6¼-inch casing."

Meets 19 Feet Of Granite

Grisham's drilling formations include dirt and red clay averaging three to four feet and hard pan from four to 12 feet. He also hits limestone, flint and occasional streaks of granite which has come in stratas 19 feet thick. Slim often finds it necessary to go through 50 feet or more of "nigger heads," too, but has little trouble with small amounts of shale, sticky soapstone, and cotton rock which usually exists in stratas only a few inches thick. Water generally is found in limestone cracks but when sandstone is encountered, Grisham is sure to find water there.

"Our solid rock," says Slim, "is usually encountered from 10 feet to 40 feet in this territory. This part of the state is rugged, to say the least. One time we struggled through 22 feet of solid granite!"

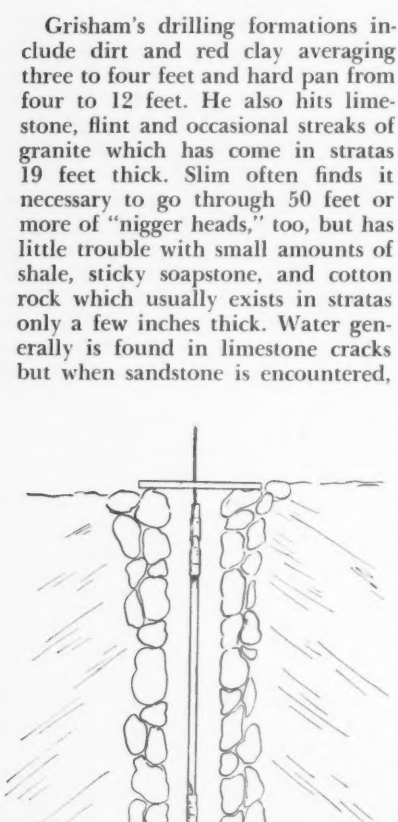
"Yes, and when we do," interjected Neva, "it gets tough on Slim because he has to do all the work of sharpening the bits, although I handle and turn the bits and tend to the drilling while he sledges."

With occasional tough drilling, it didn't take Grisham very long to learn that blasting through boulders and "nigger heads" not only cut drilling time but was a great labor saver. He found this especially true when blasting through cracks or fissures.

Accepts Tough Farm-Well Job

Whether drilling or blasting, the Grishams believe a job well done is the finest advertising for they pride in drilling a straight hole and like to hear their customers' praise of the good wells drilled. Their past achievements carry the load of advertising, and no business has ever been solicited, with more work on the books at present than can be handled for some time to come.

Regardless of the amount of business ahead, both Slim and Neva always enjoy accepting a challenge, which illustrates the spirit they tackle every drilling job. The farm well they agreed to drill near Fair Grove is a sample, for the farmer plainly warned them several times that other drillers had failed to put in a well on that property be-



• This drawing partially illustrates the difficulty the Grishams had in putting down a new hole through a hand-dug well.

• Although it's three degrees above zero in this scene, Neva Grisham is on the job helping her husband with bit dressing and drilling.

cause the underground stratas were subject to caving with several strings of tools already lost. Difficulties others encountered helped the Grishams determine more than ever to take the job and see it through to completion regardless of the consequences.

Hole Caves At 38 Feet

Slim moved his rig to the job in January on a cold day. He knew what to expect in putting the 6¼-inch hole down and set 19 feet of casing into the hole drilled previously by another contractor. In his own words, "We continued through exceptionally hard drilling, so hard that we were sure we were past the danger zone. Then it happened! The expected and dreaded cave-in happened at 38 feet, filling the hole with slushy mud and gravel for more than six feet."

To get past the cave, Grisham scratched his head and finally decided that reaming the hole would do the trick. A 100 mile trip with Neva was necessary to locate a reamer, but they found one quickly enough.

"Gun-barrel" Hole Pumps Nine gpm

Upon returning, a series of reaming and drilling and sticking of tools and more reaming and drilling finally resulted in their succeeding to set the casing past the cave to a depth of 46 feet, from which point it was easy, comparatively, to finish the hole at 125 feet.

They got a "gun-barrel" hole, too, and, of course, set a record on the farm by finishing the job. The well today continues to pump better than nine gpm to supply sufficient water for the farmer's complete herd of cattle.

Partnership Makes Friends On Jobs

Neva Grisham has been helping Slim on jobs like that since January of 1945. She feels that doing her bit has helped in the man-power shortage and has contributed a great deal to her own welfare. In addition to helping with the manual labor, her experience in clerical work and bookkeeping has come in handy in keeping records and filing reports.

Very little of the Grishams' time is spent at their Fair Grove home. Just for a breathing spell, they may grab a row-boat and try their luck on the waters of the Lake of the Ozarks. Mostly, however, they are drilling, and in spite of occasional difficulties they enjoy working together and plan to continue that way, making many friends from every water-well drilling job.

Farm Proifts from Running Water

Here are a few points every well drilling contractor can use to sell more farm-well jobs in this post-war era. Along with photographs and testimonials, these facts can form a powerful sales kit for continued success in the industry.

AT ONE TIME running water in a farm home was considered a luxury. Today a good supply of quickly-available water is recognized as a necessity to maintain the high standard of living and produce the profits every farmer is entitled to.

To the water well drilling contractor falls a part of the privilege of informing every none-user of running water of its many beneficial advantages. Advertising by equipment manufacturers in the last few years has greatly increased the desire for farm running water, but a friendly, personal presentation by the drilling contractor is usually needed to cinch a sale.

Demonstrate Water's Importance

Unfortunately, a "suspect" for a water well is left unmoved when he is told how expertly you drill wells, the high quality casing you use, the quality plumbing you install, or the power of the pump you recommend. Certainly he is interested in those facts, but only as much as he is interested in helicopters or the atomic bomb.

The job, then, lies in demonstrating that running water in today's economy is a necessity without which few can expect to reap the earnings and comforts commensurate with the American way of living. The farmer must be shown he needs the system more than he needs the money to pay for it.

Milk Production Jumps 10 Per Cent

Running water systems time and again have proved their abilities to help produce more meat, more milk, more poultry, more vegetables, more comfort and convenience. They have stepped up the yield of almost every farm product and released the farmers from hours of drudgery to hours of productive farm effort, yet costs were negligible compared with resulting profits.

A direct example of money earned is that of the Michigan farmer with only one hired hand to cultivate 110 acres of corn, oats, wheat and hay

besides caring for 25 milk cows. With running water piped to the most strategic points on his farm, he utilizes the system to fill the silo when silage is too dry but really has appreciated its value since the time he had to change pipes to the barn. During the period that the water was shut off, milk production dropped 10 per cent.

In another instance, a fruit grower found a well-filled supply tank in his orchard advantageous in getting

ORCHARD IRRIGATION

spraying done on schedule with resulting additional profits in better fruits more quickly harvested.

Expert poultry raisers *know* the necessity of running water. They understand water as feed, composing about 65% of a hen's egg and fowl's body, and only through a plentiful supply easily reached and readily available do they find poultry production profitable. They have experienced hand pumping as far too tedious a job for progressive poultry raising and fully realize profits are possible only with a plentiful supply of fresh water.

The story of increased yield in vegetable farming perhaps needs no proof, yet remarkable production records have been achieved through irrigation and sprinkling of specialized items. In Ohio a potato farmer after 32 years decided to install an irrigation system. The first year's record showed a crop increase of 100% with potatoes of such higher quality that many of his buyers — store proprietors — willingly paid a premium of 25 cents a hundred pounds to keep customers better satisfied. Here was hard-cash proof of profits quickly paying for a deeper, better producing well. In addition, the Ohioan has enjoyed complete elimination of crop failure, a hazard he previously feared in years of low rainfall.

Water well drilling contractors perhaps may have no difficulty convincing farmers that deeper wells are more sanitary than shallow wells, yet many farmers show less concern, oddly, about their personal health than the health of their live-stock. It is important to point out, there-

LIVESTOCK

fore, that pure running water is safe for cattle and promotes cleanliness of barn floors and maintains sanitation of dairy utensils. Keeping his livestock healthy with pure water is a "must" with every farmer.

One of the least emphasized reasons for maintaining an ample source

(Continued on page 17)

MILK COOLING

DAIRY CLEANSING

BARN FLUSHING

The DRILLER

A JOURNAL FOR WATER WELL DRILLERS

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New Airports Mean Well Contracts

FEDERAL Works Agency statistics released recently show that state and local governments have public works plans completed which will total almost one billion dollars in contracts while more than six billion dollars still are in the idea stage.

Looking into the future we can see that a portion of the construction monies naturally will wind up in water well drillers' pockets, but of especial interest were the statistics about airports, terminals, and landing strips.

The survey shows that 270 million dollars in airport plans are in the idea stage, 151 million dollars worth of the projects are in the preliminary stage, 61 million dollars in the design stage, and 28 million dollars can be expended at once because the plans are complete and ready to go into effect.

With America super air conscious, small towns (and large ones, too) are preparing for an air boom by planning the construction of thousands of air fields. Committee reports show that small towns will not have airports right at the outskirts but, rather, will move them out farther to allow for expansion and provide safety. No alert water well driller will want to miss any bet in getting the drilling jobs for such projects which will start immediately and continue for several years.

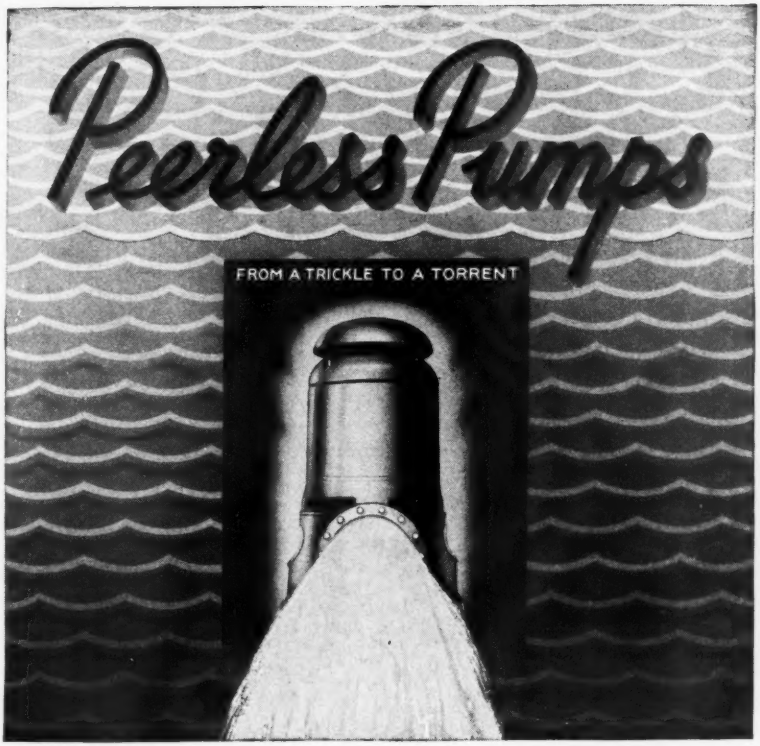
Control Dust

After grading and leveling the field and before concrete runways are laid, water can be used to allay dust for the benefit of the planes. If no concrete runway is contemplated, a good deal of water will be needed for sprinkling purposes for the season until grass and weeds grow thick enough to make a good landing field.

Water for drinking purposes will, of course, be consumed by the personnel and guests all year 'round, and will be used for other purposes in the offices.

Finally, maintenance will require water for water-cooled engines, lawn sprinkling, flushing concrete-floor hangars, and perhaps for air-conditioning.

Before construction or expansion of the airport begins is the time the alert driller will take steps to get the well contract. Perhaps he will go so far as to suggest to local authorities or planning boards to consider full use of water from a deep well adequate enough to supply every requirement for the modern airfield.



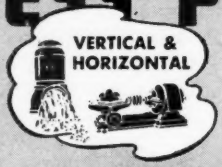
FROM DEEP WELLS— 15 TO 30,000 G.P.M.

At first glance, most deep well turbine pumps look very much alike. But in the Peerless turbine design you will find many exclusive features—the difference between ordinary service and highly efficient performance. The Peerless method of cooling the motor bearing lubricant in the head, the ingenious packing arrangement, the enduring shaft bearing contacts and the Double Seal under each impeller, are indicative of the superlative Peerless engineering characteristics.

ARMY E NAVY
PEERLESS PUMPS

PEERLESS PUMPS

PEERLESS PUMP DIVISION
Food Machinery Corp.



FACTORIES
LOS ANGELES 31, CALIFORNIA
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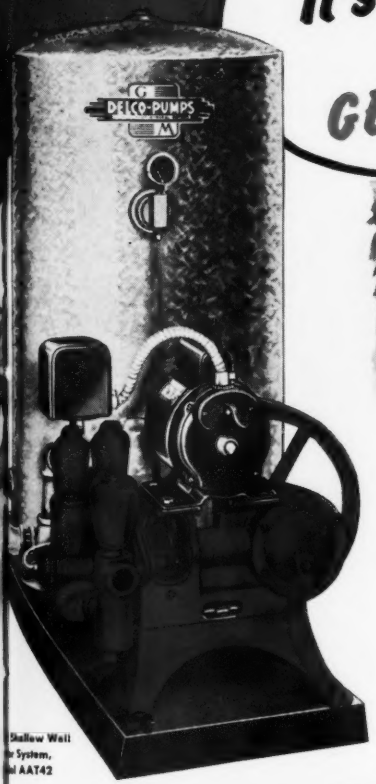
SELL A LINE THAT'S FAVORABLY KNOWN

Today's equipment buyers are "quality" conscious. They will not accept "unknown" brands. They want to not only know what it will do for them, but *who makes it*. If you can tell your prospects that the equipment you are selling is a product of General Motors it will help you turn prospects into customers.

DELCO WATER SYSTEMS FOR SHALLOW WELL

It's Built and Backed by GENERAL MOTORS



Shallow Well
System,
AAT42

Delco Water Systems are built in their entirety by the Delco Appliance Division of General Motors Corporation. Quality is controlled to General Motors standards of precision in each step of manufacture to final inspection. Result: Delco Water Systems will give your customers superior performance and long, trouble-free service. A franchise may still be available in your community . . . write for full information.

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I am interested in your plan for dealers.

Name .....

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L ... EP WELL SERVICE

NEWS OF THE MONTH

Driller Remick Remains Active In Pacific Area

CHIEF WARRANT OFFICER M. S. REMICK, formerly in the water well drilling business in Rye, New Hampshire, has maintained active engagement in the industry by drilling water wells, drainage wells, and typhoon anchors for a Pacific Naval Construction Battalion, word was received here recently. Assisting him in the work were driller W. F. Kimball, CM 1/c of Battle Creek, Michigan, and helper D. J. Palmer, MM 1/c of Tulsa, Oklahoma.

Veterans of 22 months service, the trio found drilling through coral formations in the Philippines very easy. They averaged about 80 feet each day with a cable tool rig and lately have been drilling with the same bit without dressing it for the past five weeks.

Shown above is the Navy crew that found Philippine coral easy drilling. Chief Warrant Officer Remick is on the right, CM 1/c Kimball is at the line, and MM 1/c Palmer is on the left. Note the "business" sign on the tree.

Peerless Assigns New Territories

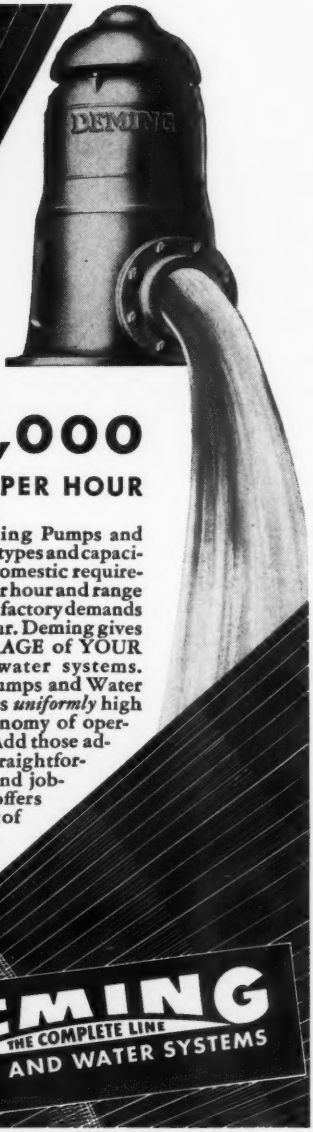
IN preparation for postwar distribution of water pumps, Peerless Pump Division of Food Machinery Corporation has rearranged territorial distribution by the establishment of five sales districts.

Warner G. Vaughan has been appointed Atlantic district sales manager with offices at Ardmore, Pennsylvania, and Charles E. Tierney the southeastern territory manager with offices in Decatur, Georgia. Edward W. Pierce will continue in charge of the central territory with headquarters at the Peerless Canton, Ohio, works. The southwestern territory will have William E. Griffin with headquarters at Plainview, Texas, and the Pacific area will be in charge of B. A. Tucker at Los Angeles, California.

New Dry Ice Plant

AVAILABILITY of dry ice in the south and southwest will be substantially increased with the announcement that the Mathieson Alkali Works, Saltville carbon dioxide plant, has completed its $400,000 addition. Distribution of the dry ice, often used to purge wells, will be made to warehouses in 15 cities by 30 new dry ice cars recently added to the Mathieson fleet.

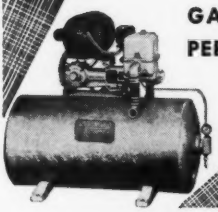
DEMING *Gives You* COMPLETE COVERAGE



180,000
GALLONS PER HOUR

Demands for Deming Pumps and Water Systems of all types and capacities start with small domestic requirements of 250 gallons per hour and range up to large scale farm and factory demands of 180,000 gallons per hour. Deming gives you COMPLETE COVERAGE of YOUR market for pumps and water systems. FEATURES of all Deming Pumps and Water Systems assure your customers *uniformly* high standards of performance, economy of operation and long-lasting service. Add those advantages to Deming's policy of straightforward co-operation with dealers and jobbers. The result is that DEMING offers everything you need to make the most of your pump and water system business.

250
GALLONS PER HOUR



DEMING
THE COMPLETE LINE
PUMPS AND WATER SYSTEMS

See Your Jobber or Write Us for Complete Details.

THE DEMING CO. • SALEM, OHIO

Well Continues To Flow After Twenty-six Years

AN unusual experience August Krueger of Manitowoc, Wisconsin, had back in 1919 occurred with a four-inch hole he drilled. The packing he used for the resulting flowing well has subsequently taught him which of two types is the better to use in his territory.

To put in the hole, Krueger found it necessary to blast boulders to get the casing down to rock at 106 feet and although the casing was loose, it was well grouted on the outside with clay, mud, and fine gravel.

Good Flow Hit At 365 Feet

At 125 feet Krueger was pleased to hit a flowing well with a thin stream which, however, proved insufficient for pumping. Desiring to obtain good production, August continued drilling without hitting any water until he reached 365 feet at which depth he struck a water strata that flowed very heavy.

As seen in the photo, Krueger always caps an overflowing well before taking his rig down and moving to another job. In this instance, however, he no sooner had the well capped than the water gushed out from the sides. When he saw that happen, he quickly released the cap and went home to prepare a packer.

Uses Brass For Packing

"The next morning," said Krueger, "I went out with some 1¼-inch pipe and set the packer in the rock. That checked the well from any further flowing, but I noticed that the water already had washed out a ditch six-feet deep."

The well has produced very faithfully ever since, although about five years after it was put in Krueger found it necessary to repair the packing to stop a small leak under pressure of the well. Commenting on the packing, Krueger said, "There are many of my wells that contain packing pipe but I found that the galvanized pipe, after four or five years, would have a taste many people did not like. That is why I turned to brass packing which does not seem to pick up the bad taste. I know it will be years to come before there will be any further trouble with wear or taste with this well, for it seems that brass is the only material that also will withstand the corrosive action of the water in this territory."

Ever since August Krueger had the foresight to have this snapshot taken, in 1919, he has carried it with him. The flowing well remains active today and required a change in packing only once.

Farm Profits . . .

(Continued from page 9)

of water on the farm is for fire protection. A faucet, a few feet of hose at the barn, another at the house, and a tank under pressure will

enable the farm owner to get a stream of water on that little fire in the vital first three minutes before it has time to turn into an uncontrollable blaze. There's no time, after a fire starts, to run to the pump with a bucket. Only water under pressure, from an adequate source of supply, can save the place then.

Even though money and profits are vitally important to every farmer, the loudest praises for their new running-water system come from the wives relieved from the tedious job of pumping water. They describe with satisfaction the benefits from tap water in the home — in convenience, efficiency, and health protection. Here's what one farm wife says about her system:

"It takes a lot of water to keep our family of seven well-fed and clean. But our electric water system solved that problem. Running water in the kitchen is a blessing, not only for drinking and cooking, but for quick, sanitary dishwashing, too.

"Even washday is more pleasant—school and work clothes come clean easier with plenty of hot water at the turn of a wrist. And our shower and modern built-in tub make warm baths a real comfort.

(Continued on page 19)

A Good Well deserves a JENSEN

The JENSEN Pumping Unit makes water from any good well cheap and dependable. All over America, from wells 100 feet and deeper, it lifts an abundance of water day after day and year after year. It does a wonderful job for cities, camps, farms, ranches, industries, parks and railroads. Write for Bulletin No. 26.

JENSEN BROS. MFG. CO.

14th and Pacific Streets, COFFEYVILLE, KANSAS, U. S. A.

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WIT BITS

A little boy and his mother stood looking at the dentist's show case. The boy, pointing, said, "If I had to have false teeth, Mother, I'd take that set."

"Hush, Johnny," said his mother. "Haven't I told you not to pick your teeth in public?"

EPITAPH TO AN ARMY MULE

In memory of Maggie, a mule, who in her lifetime kicked 2 generals, 4 colonels, 3 majors, 10 captains, 24 lieutenants, 42 sergeants, 454 privates, and 1 bomb.

Boss: Rufus, did you go to your lodge meeting last night?

Rufus: No, sah, we done have to postpone it.

Boss: Why was that?

Rufus: De Grand, All-Powerful, Most-Invincible, Supreme Unconquerable Potentate done got beat up.

"Why did you leave your last job?"

"Illness."

"What sort of illness?"

"My boss said he got sick of me."

Contractor: That's an unusual pair of socks you're wearing, one purple and one green.

Driller: Not so unusual — my wife says I have another pair just like it at home.

What did the mayonnaise say to the ice box?

"Shut the door, I'm dressing."

A young soldier dashed madly across the dock toward the ferry. With a frantic leap he spanned the three feet of water and crashed onto the deck. "Whew!" he exclaimed when he had gotten his breath. "I made it after all!"

"Made what?" asked one of the deckhands dubiously. "This boat's just coming in!"

Two cats were intensely engaged in watching a tennis match.

"Interesting game," said one.

"Yeah," said the other, "my mother is in that racquet."

"Why did that waitress slap you?"

"I asked her what she had and she said: 'I have stewed kidneys, boiled tongue, calves' brains and pigs' feet.' So I said, 'Don't tell me your troubles, sister, just give me a chicken pie and go see your doctor'."

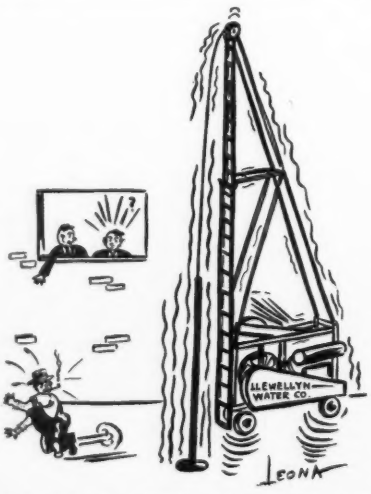
Driller: Say, that's a good looking hat you're wearing on this job.

Helper: Yep. I bought it five years ago, dropped it in two holes, cleaned it three times, and changed it twice in restaurants but it's still as good as new.

"Say, Doc, do you remember last year when you cured my rheumatism? You told me to avoid dampness."

"That's right. What's wrong?"

"Well, can I take a bath now?"



"Llewellyn put a vitamin pill in the gas tank!!"

Farm Profits . . .

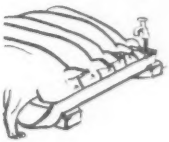
(Continued from page 17)

"Good health and extra leisure are doubly important on every farm. And we can honestly say that no

other improvement has done so much to give us both."

In spite of testimonials such as that, there are thousands of farm owners who still consider a good supply of running water an expense or a luxury out of their means. To the water well drilling contractor this can mean only a challenge — a challenge to have every one reach the highest possible standard of living for which the United States is famous, beginning with one of life's basics: Water.

The hand pump has served its day and it has performed well. But just as electric lights have replaced kerosene lamps and tractors virtually replaced horses, so is it that a modern running water system has replaced hand-pump methods. Assure your prospect that the hand pump was good, but only the up-to-date water



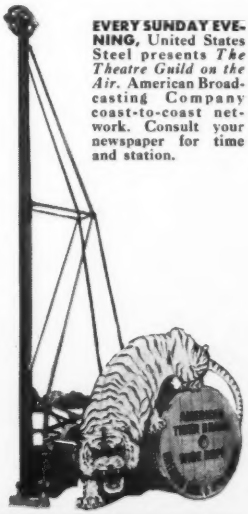
system will help him gain the profits he wants most.

The post-war era we now are in should be a veritable bonanza to

"MOR-SPRING" means Better Tool Action

THE shock load resisting action of U·S·S American TIGER BRAND MOR-SPRING Wire Lines tends to dampen out peak stresses which cause wire and rope breakage. The extra spring in these lines means more and better action from the drilling tools as the hole is pounded down to completion.

Developed especially for shallow hole oil, gas and water well drilling, American TIGER BRAND MOR-SPRING Lines are strong, tough, flexible. They help you get down faster . . . with less time out for repairs and replacements. Distributors located in principal cities.



EVERY SUNDAY EVENING, United States Steel presents *The Theatre Guild on the Air*, American Broadcasting Company coast-to-coast network. Consult your newspaper for time and station.

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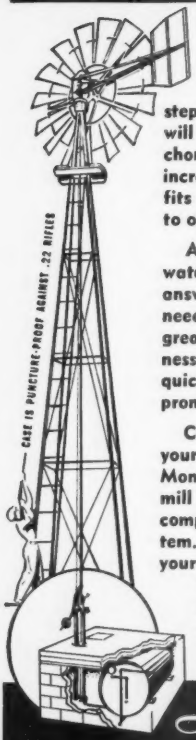
Cleveland, Chicago and New York
COLUMBIA STEEL COMPANY, *San Francisco*
United States Steel Export Company, New York
UNITED STATES STEEL

U·S·S American TIGER BRAND MOR-SPRING WIRE LINE

SKY POWER
A MOTORLESS RUNNING WATER SYSTEM FOR EVERY FARM



Running water on every farm will be the next big forward step in rural living. It will mean comfort, easier chores, time saved and increased profits—benefits every farmer is eager to obtain.

A Monitor motorless water system provides the answer to the farmer's needs. It also provides a great new source of business for dealers who are quick to recognize its promise.

Call on the farmers in your area now. Sell a Monitor Sky Power windmill as the first step in a complete farm water system. This will establish your market for pressure tanks, automatic controls and fixtures when they are available.

Monitor
SKY POWER WINDMILL WATER SYSTEM

THE *Monitor* LINE
DEEP WELL WATER SYSTEMS • WINDMILLS • HAND PUMPS • PUMP JACKS • ENGINES • WATER WELL SUPPLIES

★

• BRANCHES •
BAKER MFG. CO.: Minneapolis, Minn.; Madison, Wis.; Fort Dodge, Ia.; Cedar Rapids, Ia.; Omaha, Neb.; Kansas City, Mo.; Enid, Okla.; Hutchinson, Kansas
BAKER MFG. LTD., Winnipeg, Canada
AXTELL CO.: Fort Worth, Tex.; Amarillo, Tex.; Lubbock, Tex.; San Angelo, Tex.

BAKER MANUFACTURING CO., EVANSVILLE, WIS.

drillers everywhere because statistics show farmers' huge wartime incomes are rich to be converted into water systems, household equipment and construction work to a melody of $1200 for each of 2,500,000 farms in America. To cash in on this ability to pay for goods and services, drillers more than ever first need to sell the desirability of running water in order that customers may enjoy fire protection, household appliances such as washing machines, and larger profits from increased yield in farm production.

Nor will the farmer's ability to pay for these items be diminished as he is called upon to supply food to impoverished nations. It all adds up to greater potential water well jobs—if drilling contractors convince all prospects that installing a running water system is one of the wisest moves that can be taken.

Water Remains High

GROUND-WATER levels prevailed unusually high during the middle of the year over two sizable areas of the country notwithstanding the seasonal decline that occurred over large parts of them, a recent Geological Survey report stated. One of the areas extended from Virginia northward along the Atlantic Coast to Maine while the other area formed a band reaching from Oklahoma northward across eastern Kansas and Nebraska, into Iowa, and included parts of North Dakota, Minnesota, and Wisconsin.

Localities where water is used extensively for irrigation found continued decline of water levels in New Mexico, Arizona, and California. Elsewhere, however, where low pumpage prevailed, the water table stood at a normal stage except for a "low" area in the southeastern states from Mississippi to Florida.

Powered Rig With Gasoline in 1893

FOR some time after the July issue of THE DRILLER appeared, it seemed no one in the industry claimed use of a gasoline engine for water well drilling prior to January, 1906, as experienced by T. D. Ervin of Glenwood Springs, Colorado.

We have, however, just received information from R. J. Wells of Oakfield, Wisconsin, with the claim and substantiation that he used a gasoline engine on his drilling rig in 1893.

The engine was built by F. C. Austin Mfg. Co. of Harvey, Illinois. Although advertised for use with either gas or gasoline, the engine as employed by Wells used gasoline only. Now 72, Wells clearly remembers he was only 20 at the time the engine was used, and recalls that he had a great deal of trouble with it especially with the hot-pipe or tube which took the place of a spark plug and required preheating to start the engine.

Because of this difficulty, Wells did not use the engine any length of time, which gives T. D. Ervin the privilege of continuing to claim priority for *successful* use of a gasoline engine in 1906 for water well drilling.

A recent letter from Mr. Ervin states that his Fairbanks-Morse "jack-of-all-trades was mounted on the same frame as the drilling machine with low steel wheels used for easy moving." After locating in Beaver County, Oklahoma, in March of 1907, Mr. Ervin saw several drill rigs powered with gasoline engines, but prior to his 1906 experience he was unable to recall ever seeing gasoline motors replacing horse power.

Best for Blast Hole or Shallow Well Drilling

Macwhyte "Hi-Lastic" is unsurpassed for fast, profitable shallow well or blast hole drilling. Why? Because it keeps the bit turning better on all types of formation . . . helps reduce tendency for the hole to get out of round, and for the bit to channel. You can carry tools higher with "Hi-Lastic", make a longer stroke, drill more hole at less cost. "Hi-Lastic" is internally lubricated. No manila cracker needed.

For profitable deep well drilling, Macwhyte Standard Cable-Tool Line has just the right elasticity to strike long, hard blows.

For fast bailing, use Macwhyte Sand Lines. Coarse laid (6x7) or soft laid (6x19), Mild Plow Steel.

Get the CORRECT line for your equipment from

No. 840

MACWHYTE COMPANY

2939 Fourteenth Avenue, Kenosha, Wisconsin, or any authorized Macwhyte Distributor or Mill Depot

BARGAIN COUNTER

To the reader who wishes to advertise used equipment in "Bargain Counter Section.

All advertising in this section is payable in advance. Enclose your check or money order with your order. Closing date — 10th of preceding month. Example — January issue closes December 10th.

per line. Minimum charge $1.20. No discounts; no commissions. Read these instructions carefully. The average line contains 28 characters (20 characters if all capital letters are used). Count spaces and punctuation as one character each. Allow 10 characters for box number if blind advertisement is desired. Count your own copy to save delay. Holding up your advertisement one month to secure approval of revised copy or an additional remittance, may cost you real money in a lost sale. Be sure to enclose the correct amount of money with your order.

To the reader wishing to answer "Bargain Counter" Section advertisements appearing on these pages:

Be sure to address your inquiry to the advertiser by using the correct box number. Mail your letter in care of THE DRILLER, South Milwaukee, Wisconsin. Write each advertiser a separate letter. Do not write us for name and address of advertiser. This information will not be given out. We have no information about the equipment advertised other than that shown in the advertisements themselves.

DRILLS

No. 19 Armstrong rig and tools. Rig rebuilt and now working. Capacity 1000'. Telescope mast, rubber shock absorber. Tools to drill 8", 6", 5" hole. 900' ¾" cable, 900' 7/16" sandline. Complete tools. Dodge 6 drilling motor. Mounted on 3-ton White truck, pneumatic tires. A. W. Crispen, 825 Frederica St., Owensboro, Ky.

Sparta drill, band wheel type, wood frame and derrick. Mounted on four solid rubber tires. Shock absorber for wire rope on spud beam. Four cylinder LeRoi engine. With or without tools and cables. Priced for quick sale. Myron Acker, 9310 West Coldspring Road, Milwaukee 14, Wis.

Wood frame well drill mounted on solid rubber tires. Single cylinder gasoline engine, 6 H.P. Geared bull reel with worm feed. Chain driven sand reel equipped for wire rope. Priced to sell. No tools. Box 0488

No. 34 Star drill in good working order. Mounted on a 2-ton Stewart truck. Box 0509

DRILLS

One No. 3 Keystone mounted on Indiana truck with pneumatic tires. Machine suitable for use with either wire or manilla cable. Capacity of machine 500' 6", 8" and 10" holes. Ready to go to work. Cash price $1000, without tools. Parkhurst Well & Pump Co., 799 Bloomfield Ave., Verona, N. J.

MISC.

No. 8 Armstrong Bit Dresser with crane, dies and rings for 5", 6" and 8" bits and oil burning furnace with blower. $1500. Located in New York. Box 0468

Reconditioned Saunders 4 to 12" pipe threading machine complete with new 6, 8, 10 and 12" heads with chasers. Will supply detailed information upon request. Box 0439

One drill stem 4" x 12', joint size 2" x 3" - 7 Thd. A. P. I. Slightly used. Price $60.00. Box 0429

WANTED

Used drill in good condition. Bucyrus-Erie 21-W or 33-W. Please include price, equipment included, location of machine in reply. Box 0419

Cable or jetting type drill. Prefer combination jetting and cable tool rig but will consider standard machine. Box 0366

HELP WANTED

Well driller. To work in Southeastern Iowa. Also must be able to contact jobs. $1.25 per hour. Box 3810

Driller to operate new Bucyrus-Erie drill located Central Connecticut. Will pay by foot, hour or week. Box 0449

Two experienced cable tool drillers for 6" work. Union wages. Box 0459

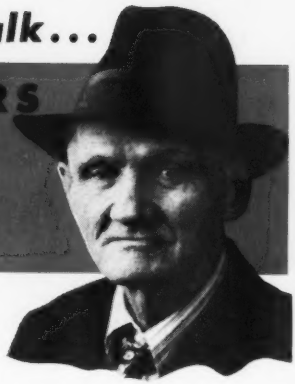
POSITION WANTED

Experienced water well driller. Excellent references. Will accept overseas position. Box 0489

• To supply water for Forest Home Cemetery in Milwaukee, Joseph Egerer moved his Bucyrus-Erie 24-L to this spot for the 12-inch job. He expected to hit a good run of water at 1800 feet and was down 735 feet at the time of the photograph. Driller H. W. Gabel (behind the rig) let the sludge run into the creek flowing under the bridge.

I'm not interested in talk...

IT'S WHAT 55 YEARS HAVE TAUGHT ME THAT COUNTS...



"There is no substitute for experience. And 55 years handling Cook Well Strainers have proved over and over again that their *patented calked construction* is the greatest single improvement ever made in strainer construction." That, in a nut-shell, is the observation of Robert Duncan of Diehl Pump & Supply Company, from a life-time experience.

Here's why:

COOK Strainers are CALKED under pressure, by an exclusive process, thus avoiding: 1. Hard, brittle spots in wire, due to change in temper caused by applied heat (welding). 2. Change in chemical composition of wire, due to more volatile elements being lost because of applied heat. 3. Limitations in kinds of alloys that may be employed.

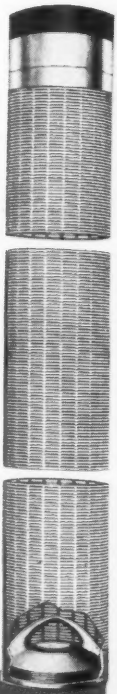
Hence, COOK Strainers can be made from any iron, copper or nickel alloys. Refined Iron, Silicon Bronze and famous Red Brass are standard.

This Cook non-clog construction provides the largest inlet area consistent with safe margin of strength.

Magnified view of rigidly calked unions of wire and bars . . . a Patented Cook Construction.

Cook Strainers are SAFE, because strong; EFFICIENT, because of largest inlet area consistent with strength; DURABLE, because of size of wire and supporting bars and because of no physical and chemical changes in composition of material during construction; ADAPTABLE, because of a variety of strainer connections and fittings to select from to meet all methods of installations.

Have all COOK facts for comparison before ordering that next strainer, and you'll agree Mr. Duncan is right.



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for Plain and Gravel-Wall wells

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